INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

S-E-C-R-E-T

50X1-HUM

COUNTRY USSR (Ukrainian SSR)

REPORT

SUBJECT Zaporozhstal Metallurgical Plant in Zaporozhye

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reports on the Zaporozhstal Metallurgical Plant in Zaporozhye /N 47-49, E 35-11

Attachment 1 provides a general description of the installation and operations of the various shops. An annotated sketch of the plant is also included.

Attachment 2 contains general information on the plant, railroad facilities, and working conditions. A plant layout is also included.

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1. The Zaporozhtal plant was on the right bank of the Dnepr River, six kilometers north of the city of Zaporozhye. The plant did not have a number and it was not known by any other name. The plant was subordinate to the Ministry of Heavy Industry (sic). 50X1-HUM

11. Installations (see sketch attached to this report).

The plant was divided into two sections.

The following departments belonged to the 1st Section:

Slyabing (7) rolling mill.

Goryachiy Prokatka (9) hot working rolling mill.

Kholodnyy (10) cold working rolling mill.

Belyy-zhest (11) tin rolling.

Building No. 3. Slyabing (7) Rolling mill into which ingots entered after leaving the blast furnaces. It was about 450 x 80 x 8 meters.

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Building No. 4. Goryachiy. Hot working rolling mill. Ingots were submitted to high temperature in electric furnaces. 50X1-HUM

The following departments belonged to the 2nd Section:

Building No. 5. Electro-Remontnyy ..Tsekh... Electrical section. It employed 350 to 400 workers. This shop repaired electrical machinery.

Building No. 9. Mekhanicheskiy Tsekh (17) Machine shop which repaired machinery and employed about 600 workers and it was 150 x 60 x 8 meters. No further information 50X1-HUM

available. [redacted]

Building No. 10. Stroitelnyy Tsekh. This shop employed about 300 workers whose principal duties consisted of repairing and modifying blast furnaces. Size 150 x 60 x 8 meters. No further information available.

Building No. 11. Telephone office. 3 story building 25 x 25 x 16 meters. No further information available.

Building No. 12. Tsekhchatzheniya 150 x 60 x 8 meters. This was the plant's plumbing shop and it employed about 100 workers.

Building No. 13. Kaprobnyy tsekh (20) Scrap metal warehouse which employed about 100 workers. It classified and stored scrap metal. (180 x 75 x 8 m).

Building No. 14. Employment office 120 x 70 x 8. No further information available.

Building No. 8. 100 x 10 x 8 meters. Personnel administration. No further information available.

A. The plant produced no coke. There were no oil refining facilities in the plant.

B. The ore, which came in two forms: a reddish powder or in the form of a black stone, came from the city of (6) Krivoy Rog. [redacted] the ore was [redacted] was washed by the dirty water which flowed through the canal. [redacted] There was no equipment for concentration of ore by sifting or by magnetic process. [redacted] The blast furnaces in this plant produced iron and steel ingots.

C. Pig Iron Production

Building No. 1 Domenyy (Blast furnace) Tsekh. Brick building 500 x 100 meters engaged in the production of pig iron, It has three blast furnaces resting on solid concrete bases with the base diameter approximately 6.5 meters and with stacks approximately 25 to 30 meters tall. Each furnace had a capacity of 250 tons of pig iron in 24 hours. [redacted] they used clay moulds [redacted] the ore was brought to the furnaces by railway [redacted]

There was a steady flow of ore to the mill. However, because of freezing conditions in the winter, less ore came during this season.

 [redacted]

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The cold working rolling mill had 5 or 6 annealing ovens (hornos para recocer) [redacted] The total daily output of this section was [redacted] 50X1-HUM between 500 and 600 [redacted] tons.

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There was no [redacted] forging done in the laminating section. [redacted] however, [redacted] in the machine shop there was a small forging shop [redacted]

F. Steel blooms measuring 1.5 x .40 m x .40 m and weighing between 8 and 10 m tons were brought to the "Slyabing" section where they were annealed at temperatures varying between 700° [redacted] and 800° C. [redacted] these annealing ovens (pozos de [redacted]) [redacted] covered with concrete with stacks of welded steel sections. Stacks had a height of 15 meters. [redacted] the exact number of ovens but [redacted] 5 or 6 stacks and [redacted] each stack represented an oven.

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The blooms were transported by crane to trolleys that dumped them on a rolling platform which carried them to the rolling stand. The long blooms were rolled into steel sheets at this point.

Each long bloom produced three steel sheets about 2.5 to 3 meters long and between 1 and 1½ meters wide with a thickness varying between 150 to 200 mm. Then these sheets were annealed again. [redacted] these ovens [redacted] were fed from the top and were covered with concrete and bricks. After this annealing process, they were given a number of passes on the rollers reducing the thickness of the sheets to 2.5 mm (minimum). Some was rolled to 80 x 1 meter with a thickness of .0025 meters.

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G Electric Power and Gas

The Zaporozhtal plant received its electrical energy from Dneproges (8) which was located 8 kilometers from the plant in the NE part of Zaporozhye.

The gas used in this plant came from Kokhsokhim Zabod (22) which was located 2 kilometers from the metallurgical plant in the NW part of the city.

Cold-Rolling Section:

[redacted] This rolling mill employed 1,200 workers, and 50X1-HUM was divided into five shops:

1. Trabilnaya Liniya (12). There were about 150 men employed here and their job was

Attachment 2

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putting the steel sheets steel through a chemical bath, before the steel was fed to the roller. magnetic steel for transformers was made here. 50X1-HUM

2. Razdelochnoye Agregat: (13). This was a hot working rolling mill which cut the steel sheets and prepared them for shipment to factories in Moscow, Gorkiy and Stalingrad. This mill put up sheet steel 3 mm thick in rolls. 50X1-HUM

3. Rolling Section (Prokatnoye Otdeleniya) (14).

Cold working rolling mill which employed 300 workers. The principal function of this mill was cold rolling the sheet steel that came from the hot working rolling mill. The minimum thickness rolled here was .50 MM. 50X1-HUM

Daily production of this mill was as follows:

about 120 tons of .50 mm thick sheets
or 80 to 100 tons of 2 mm thick sheets.

this sheet steel was used in the manufacture of transformers and machinery.

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4. Termicheskoye Otdeleniye (Thermal section). (15)

This mill employed about 150. It received cold rolled steel and annealed it with temperatures varying between 700 and 800 degrees. No further information available.

5. Dressirovochnyy: This section employed about 500 men and its chief function was the classification and the preparation of sheet steel for shipment. It had special sheet metal cutting equipment and it cut steel (0.5 and 3 mm thick) into .5 to 2.5 m x .5 to 1 m sheets .5 mm to 3 mm thick.

Building No. 7 Belyy-zhest (11).

Building 120 x 60 x 8 meters.

This section employed about 600 workers whose job was to cut sheet steel longitudinally. (2 trenes de laminacion).

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Attachment I [redacted]

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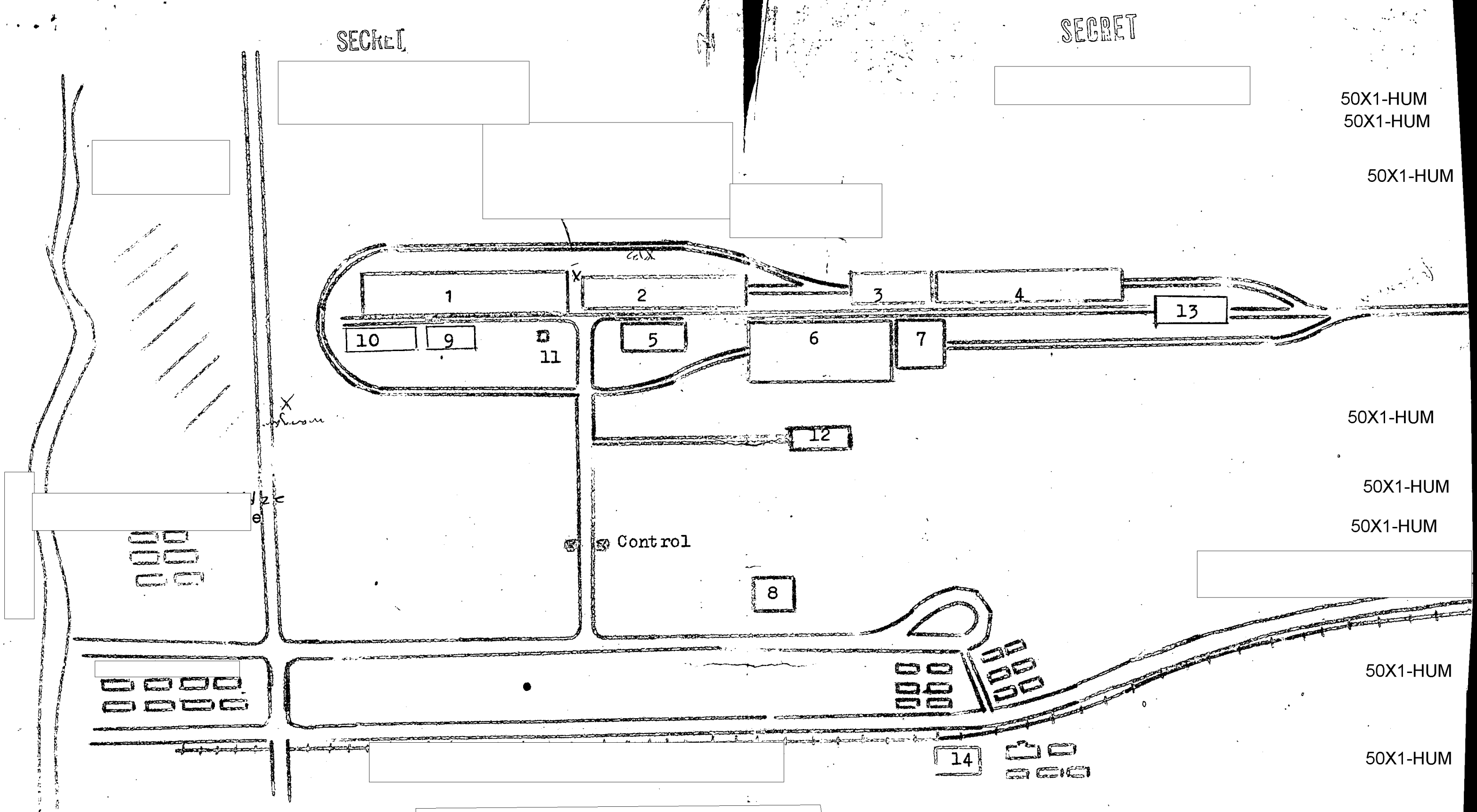

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1. Blast Furnace 1. [redacted]

" " -2.

3. Rolling mill -3.

4. Hot working rolling mill 4.

5. Electricity section -5.

6. Cold working rolling mill 6.

-7.

8. Offices 8.

9. Machine section 9

repair section for blast furnace 10

11. Telep. Exchange 11

12. Fuel Supply section 12

13. 13

14. Personnel Offices 14

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Zaporozhtal Iron Works

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General

1. The Zaporozhtal (ЗАПОРОЖТАЛЬ) Iron works was never known by any other name or numerical designation and was located approximately 12 kilometers northeast of the center of Zaporozhye (4749N-3510E) on the east banks of the Dnepr River. The plant produced iron for many items such as automobiles, motorcycles, washing machines, and iron for construction purposes. The plant was in operation 24 hours daily and employed over two thousand persons. (See layout of plant on page 3) Electricity for the plant originated at the Dnepogres hydroelectric plant located northeast of the city and approximately five kilometers from the plant.

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2. the Martin blast furnaces. This section housed 10 blast furnaces in a building 100 meters long and 80 meters wide, constructed of brick and steel. The chimneys, one for each furnace, were approximately 7 meters in diameter and 35 to 40 meters high. There were five overhead cranes, each serving two furnaces. Four were and one of German origin. They were all in excellent condition. The capacity of each furnace was 200 tons. It required from 6 to 8 hours for each load produced for a total production of 6,000 tons every 24 hours. The mixture consisted of aluminum, manganese, coke, lime, scrap iron, cast iron and an unknown substance

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3. Transportation

The main railroad line leading to Moscow ran along the south end of the plant and auxiliary railroad lines ran throughout the plant. All outgoing and incoming material was transported by rail

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4. Work conditions, Security and Anti-Aircraft Defense.

The workers were employed on a three-shift basis 24 hours daily, 7 days weekly, but each worker had one free day each week. Safety measures were employed throughout the factory and accidents were reduced to a minimum. Each worker entering the plant possessed identification pass with photograph which was checked by the factory gate guards. One firefighting team with equipment was available on the factory grounds and the only semblance of anti-aircraft defense measures were the anti-air raid shelters below the building

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no air raid exercises were ever practised.

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Legend to Plant Layout

1. Offices
2. Manganese stock pile
3. Blast furnaces repair shop
4. Mechanic shop
5. Electric repair shop
6. Cold working rolling mill
7. Tin rolling mill.
8. Scrap metal warehouse (~~xxxx~~ selection of scrap)
9. Blast furnaces.
10. Cast iron reserve
11. Blast furnace (Martin)
12. Rolling mill
13. Hot working rolling mill
14. Air Plant

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